National Marine
Safety Committee

Regulatory Impact Statement

National Standard for Recreational Vessels

Australian Builder's Plate

(formerly known as the National Compliance Plate for Recreational Boats)

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1 STATEMENT OF THE PROBLEM

1.1 Background

A review of marine safety arrangements was carried out in 1995 and 1996, which ultimately led to the establishment of the National Marine Safety Committee (NMSC). The review identified significant deficiencies in the coordination of legislation and administrative policies and procedures at the State/Territory level, and that these deficiencies imposed substantial costs on administrations, industry and users (Thompson Clark 1995). As a result, a National Marine Safety Strategy to address the deficiencies was developed against an agreed framework of goals and objectives for marine safety administration (NMSC 1998). The strategy was endorsed by Ministers of the Australian Transport Council (ATC) in 1998, following a draft in 1997 which was subject to wide consultation.

The National Marine Safety Strategy is aimed at domestic commercial vessels and recreational boats which come under the control of the States and the Northern Territory. The NMSC is responsible for the coordination of the implementation of the Strategy; it was established under an Intergovernmental Agreement (IGA) signed by the Prime Minister, Premiers and the Chief Minister of the Northern Territory in November 1997.

The objective of the Strategy is to establish and sustain a harmonised national system which has as its principal aim the protection of life in Australian waters. With respect to recreational boats three core areas that need to be addressed were identified:

1 the safety of the operator
2 the safety of the boat; and
3 the level of safety equipment required to be carried.

Four projects to address these core areas have been commenced. The project assessed in this Regulatory Impact Statement comprises fixing an Australian Builder's Plate (ABP) to recreational boats, covering information about the standards to which boats are built. The standards and information will cover such things as engine power, loading and buoyancy, and it is intended that they will become mandatory under State and Territory marine safety legislation. The plate will therefore provide information to boat users to enable them to operate boats in a safe manner and will require boat builders to apply minimum safety standards for the design of recreational boats to be applied nationally.

1.2 Recreational Boats

The National Standard for Commercial Vessels will contain standards for the design, construction and operation of commercial vessels and replace the Uniform Shipping Laws (USL) Code. Recreational boats, which are vessels not used for a commercial purpose, have no similar extant standard. There is an Australian Standard 'Small Pleasure Boats Code' which caters for some recreational boats but is not called up as a construction standard in legislation by any marine authority[1]. There are also International Standards Organisation (ISO), European (CEN) and American (ABYC) standards which cover recreational boats to a greater or lesser extent.

There are about 640,000 registered recreational boats, but not all recreational boats are required to be registered. Registration is not required in the Northern Territory at all and not all recreational boats are required to be registered in other States. It is estimated that there are 31,000 new recreational boats registered each year.

1.3 Need for Regulation

Minimum national standards for recreational boats are being pursued to achieve three of the goals in the National Marine Safety Strategy. The goals are:

1. common standards;
2. safe boats, in particular through the adoption of performance based standards; and
3. safe users, in particular through encouraging more responsible use of recreational boats.

There is currently no regulation of construction standards for recreational boats. A survey of boat owners indicated that they thought that their boats were built to some standard, and that some minimum standard was supported in the interests of safety. Boat builders also support a limited set of minimum standards, but not a comprehensive standard covering all aspects of boat design and construction.

One of the initial reasons for investigating the need for recreational boat construction standards was a number of coroner's reports in NSW and Victoria that expressed surprise that there was no legislated standard to which recreational boats had to be built (NMSC 2000). More recently, the WA coroner has investigated three fatal incidents in 2000 and 2001 (involving 5 deaths) in which the standard of recreational boats was implicated. In all cases, the coroner commented on the lack of regulation, and the lack of buoyancy requirements (amongst other things)[2].

Incident data do not reveal any significant pattern of hull failures or hazard to the boating public from inadequate construction. What is important to safe operation is that the boat is used for the purpose for which it was designed, and that can be achieved by making available relevant information to recreational boat owners.

It is important that boats are buoyant in an incident or emergency to protect the occupants because fatalities are more likely once a person is in the water. Buoyancy is affected by the loading of the boat and the amount and location of buoyant material used in construction. Standards to ensure that a boat remains afloat and upright can therefore be expected to reduce the likelihood of capsizing in the event of swamping and to increase the chance of survival in these circumstances. Marine incident data

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[1] AS1799.1: General requirements for power boats, AS1799.2: General requirements for yachts, AS1799.3: Engineering, AS1799.4: Reinforced plastics construction, AS1799.5: Aluminum construction.

[2] Letter from the A/Director Marine Safety (WA), dated 10 April 2002, attaching a letter from the WA coroner raising concerns about the lack of recreational boat regulation, a report from a naval architect relating to the 3rd incident, and the coroner's reports on the first two incidents.

showing the effects of a lack of buoyancy are discussed in Section 3.2; they indicate that approximately half the recreational boat incidents and perhaps more than half of the fatalities could be affected if boats remained afloat.

The variety in the types of recreational boats is large ranging from personal water craft to dinghies to ocean going cruisers. In these circumstances standards which are prescriptive in nature are likely to be difficult to develop for all circumstances and to be inflexible or unduly complex or onerous. This argues for an approach with a performance basis to the specification of buoyancy requirements. A performance basis will also change the emphasis of responsibility to the boat builder and operator. It can also more readily accommodate improvements in technology.

Due to the level of movement of recreational boats between jurisdictions a national standard is required to reduce the confusion and inadvertent non-compliance that may occur if varying State and Territory requirements were introduced. In the absence of a national standard, some jurisdictions intend to introduce standards, and there is no guarantee that they will be consistent. Boat users and the boating industry support national standards for recreational boats for these reasons.

1.4 Other Recreational Boat Safety Projects

As noted in Section 1.1, there are four NMSC projects aimed at improving recreational boat safety. REC 1 was concerned with the competence of boat operators and involved the development of a set of minimum core competencies for recreational boat users. These core competencies have been approved by the Australian Transport Council (ATC) as guidelines for use in the development of training courses. They include:

- the ability to respond appropriately to boating emergencies and incidents; and
- trip planning and preparation, including loading of passengers and freight.

REC 2 was concerned with the need for standards for recreational boat design, construction, load/person capacities, power capacities, buoyancy and stability. The consultation process associated with this project indicated that boat standards in general were not a high priority, but that there were some standards which were required. Boat builders indicated that a single standard could have the effect of impeding technological development and impose unwarranted design restrictions in an industry which caters to a very wide range of boats which operate in a very wide range of situations. There is no single recognised international standard and no comprehensive Australian standard as is the case for commercial vessels (the USL Code). The introduction of an Australian standard at this time may also hinder the export of recreational boats.

Nevertheless, it is necessary that users of recreational boats can be satisfied that their boats are fit for purpose in some critical areas. This is to be achieved through the adoption of an Australian Builder’s Plate which is the subject of project REC 4 and this Regulatory Impact Statement. The draft proposal referred to a National Compliance Plate (NCP), but the plate has been renamed the Australian Builder’s Plate (ABP) as a result of the public consultation process (see Appendix D).

REC 3 proposes a national standard for the carriage of safety equipment on recreational boats. The draft standard and Regulatory Impact Statement have been subject to public consultation and are currently being finalised for submission to the Australian Transport Council.

2 OBJECTIVE

The overall objective of the work of the NMSC, as stated in the National Marine Safety Strategy, is to establish a harmonised national system which has as its principal aim the protection of life in Australian waters. This to be achieved by a system of:

- common standards;
- safe vessels;
- safe users;
- safe infrastructure;
- sound information and analysis; and
- public consultation.

The Strategy identifies two strategies specifically addressed to recreational boats:

1. develop and encourage the adoption and use of a common framework of objectives and standards for recreational boats; and
2. encourage competency and responsible use of recreational boats.

The proposal for an Australian Builder's Plate (ABP) for recreational boats is covered by both strategies. It has been developed using a common framework and the information on the plate is designed to encourage the use of boats for the purposes intended.

The main objective of the ABP is to enhance the safety of persons on recreational boats by providing information to boat users on the buoyancy of a boat and its safe loading.

Other objectives relate to the work of the NMSC more generally. They are to achieve:

- common standards and mutual recognition of the standards by all marine authorities; and
- a performance basis so that requirements are flexible enough to enable innovation and to vary depending on individual circumstances.

3 STATEMENT OF THE PROPOSAL AND ALTERNATIVES

3.1 Proposal

The proposal is that Australian Builder's Plates (ABPs) be fixed to most recreational boats, and contain the information shown in Table 3.1. The ABP is a means of providing users of recreational boats with information that, if complied with, will enhance safer recreational boating. It is primarily an education and information mechanism.

Table 3.1: Proposed Information to be included on Australian Builder's Plates by Length of Recreational Boats

Item	Length < 6m	Length ≥ 6m
Title: Australian Builder's Plate	Yes	Yes
Builder	Yes	Yes
Maximum outboard engine power rating (kW or HP)	Yes[1]	Yes[4]
Maximum outboard engine weight (kg)	Yes[1]	Yes[4]
Maximum persons to be carried (whole number and kg)	Yes	Yes
Maximum load (kg)	Yes	Yes
Warning statements re overloading and use of owner's manual	Yes[2]	Yes[1]
Buoyancy standard to which the boat is built	Yes[3]	No
Build date or Hull Identification Number (HIN)	Yes	Yes
Warning statement re alterations to the boat	Yes	Yes

Note: 1 If the boat is a personal water craft and therefore not powered by an outboard motor, then the information may be omitted or the words "not applicable" stated.
2 The builder may decide that a warning statement is not required.
3 If neither the basic nor level flotation standard is used, "insufficient flotation" must be stated for a 3 year transition period, expected to be the middle of 2006.
4 If the boat is not powered by an outboard engine, then the information may be omitted or the words "not applicable" stated.

The requirements are contained in the proposed *Standard for the Australian Builder's Plate*. It is expected that implementation of the standard will be via common requirements in marine safety legislation in the States and the Northern Territory. Implementation arrangements have yet to be finalised and are not subject to regulatory assessment in this statement.

The recreational boats not required to have a plate fitted in accordance with the proposed standard are:

- aquatic toys;
- amphibious boats;
- canoes and kayaks;

- hydrofoils and hovercraft when operating in the dynamically supported mode;
- race boats;
- sail boats; and
- submersibles.

These exclusions are consistent with exclusions in other national and international standards.

Boat builders can choose the design of ABPs and include information in addition to that specified above. The plate must be visible, permanently fixed, permanently marked, and resistant to alteration and fading; any symbols on the plate must meet the requirements of ISO11192 and the characters and symbols must be a minimum size.

The buoyancy standard for recreational boats less than 6m is to be measured as either level flotation or basic flotation where the flotation performance criteria are defined as follows:

> **Level Flotation**
> A flotation system that will keep a boat carrying its maximum load from sinking when swamped, assuming the occupants remain within the boat and supported by the flotation system. The flotation system must be such that it will keep the swamped boat floating level, and prevent it from capsizing in calm water. Level Flotation does not provide a self-righting capacity.
>
> **Basic Flotation**
> A flotation system that will keep a boat carrying its maximum load from sinking when swamped, assuming the occupants of the boat have left it and are in the water clinging to it. With Basic Flotation the swamped boat may float at any attitude.

The buoyancy standard field on the ABP cannot be left blank. If a boat is unable to meet either level flotation or basic flotation, the words "insufficient flotation" must displayed. This course of action will be removed in mid-2006 hence requiring boats to be built with either level or basic flotation (see Section 3.3.3).

The proposal is that any recognised national or international standard can be used to determine engine power rating, engine weight, person capacity, load capacity and buoyancy, but that the same standard must be used for each of these things. All extant standards that may be used by boat builders include means of establishing that the standards are met, mainly by calculation but sometimes by practical test.

3.2 Alternatives to the Proposal

The proposal was developed over several years in consultation with the recreational boating industry and marine authorities. The development process shows the rationale behind the proposal and the broad alternatives which were considered.

The original proposal was to develop a set of construction standards for recreational boats, similar to those for commercial vessels. This alternative did not proceed because:

- there is no single recognised standard for recreational boats;
- the development of a local standard would involve considerable resources;
- a prescriptive standard may hinder innovation in boat design and building; and
- the adoption of a standard may reduce the ability of the industry to export boats to countries where that standard was not recognised.

The public comment on the draft proposal did not support construction standards for recreational boats (see Section 3.3.5).

The alternative of no standards for recreational boats is not considered feasible. The number and severity of incidents indicate that some standards are necessary. It is estimated that there are 45 deaths and 109 serious injuries associated with recreational boat use each year (see Appendix A.2). The characteristics of the incidents in three States detailed in Appendix C provide guidance on the priority matters from a safety improvement point of view.

Over 13 years (1987 to 1999) in Tasmania there were 34 fatal recreational boat incidents involving 46 fatalities (MAST 2000). Characteristics of the incidents which support some form of standards include:

- 76% involved small boats (dinghies and runabouts);
- 47% involved boats being swamped then capsizing; and
- all the people who died were experienced recreational boaters and they died in the water, whether or not they were wearing a lifejacket; this shows the importance of keeping boats afloat and people out of the water.

23% of fatal incidents occurred at sea and the remainder in relatively calm waters. The location of incidents is likely to reflect exposure in part. MAST also conducted a survey of boat users that indicated at sea (greater than 2nm off the coast) was the most common place of boating for 17% of respondents, compared to the 23% of fatal incidents occurring at sea. This suggests that boating at sea is slightly more risky than boating on calm waters, but not greatly more so.

Only 6% of the Tasmanian fatal incidents involved hull damage which suggests that boat construction standards are not a high priority from a safety viewpoint, thereby supporting rejection of the first alternative of a set of construction standards for all recreational boats.

In 1997/98 in NSW, small open boats were involved in 35% of marine incidents. Incidents involving swamping or capsizing were 20% of all incidents, but 54% of fatal incidents (Waterways 1999). This shows that the risk of death to occupants is very high once a boat has capsized.

Data on the location of incidents in NSW over a 6 year period to 1997/98 suggest that fatal incidents are slightly more likely in open waters, but calm waters are not immune from recreational boat incidents with serious consequences, confirming the Tasmanian data.

Victorian data indicate support for some standards with the emphasis on small boats and keeping those boats afloat:

- 92% of recreational boats involved in marine incidents over 3 years (1998/99 to 2000/01) were less than 6m in length; and
- over 11 years (1987/88 to 1998/99) fatal incidents showed that boats were small (dinghies 29%, small fishing boats 28%), that they capsized (49%) or were swamped (7%), and about half occurred on inland waters.

The above data indicate that approximately half the recreational boat incidents and perhaps more than half of the fatalities could be affected if boats remained afloat. In the public comment on the draft proposal, it was claimed that few boats sank in marine incidents and few incidents occurred on enclosed waters so that a buoyancy standard may not improve safety to any great extent. The data above indicate that enclosed waters are risky. This extent of safety improvement is likely to be affected by whether basic or level flotation is adopted, as is acknowledged in the assessment of the safety benefits (see Section 4.3.2).

Standards are supported by boat owners (93%) and boat builders (91%) as indicated by surveys undertaken by the NMSC and BIA as part of the development of the proposal (see Appendix B). The level of support for new standards by boat owners may be below 93% in practice given that 88% of boat owners considered that recreational boats have adequate safety levels. Nevertheless, buoyancy and stability were ranked as the most important standards required, and loading and engine rating as the most important items to include on an Australian Builder's Plate.

Boat builders' support may also be somewhat lower than 91% as their responses to other questions in the survey on available standards and standards used indicated some confusion. Builders considered that the most important items to include on an ABP were Hull Identification Number (HIN), loading, engine rating and power, and manufacturing standards; these four items were supported by over 80% of builders. The inclusion of a buoyancy standard was supported by 70% of builders.

The proposal was designed to address the main concerns, based on marine incidents, with a plate fixed to a boat as the mechanism to provide information to boat users to improve safety levels. The main concern is buoyancy, ie whether and how a boat remains afloat in the event of swamping: this is mainly a concern for small boats. Other concerns are boat weight and loading because of the effect they can have on the buoyancy of a boat.

The course of action adopted for the ABP proposal is similar to that adopted in New Zealand following a comprehensive review of recreational boat safety. Boat stability and flotation were identified as significant causal factors in marine incidents, and they are to be addressed in cooperation with industry and by improving knowledge of boat owners (MSA 1999).

A further alternative would be to allow self regulation in the form of an industry code of practice for the fixing of an ABP to recreational boats. In this case, it would be up to individual boat builders whether to comply. There is no guarantee that all boat builders would comply so many boats could continue to be built without a plate. Boats can and often are built by owner-builders which is likely to make self regulation more difficult to achieve compared to an industry where goods are only produced by corporations[3]. As the lack of adequate buoyancy is the major characteristic of marine incidents, this alternative is not considered feasible to meet the objectives of the proposal.

In addition, self regulation schemes are generally industry based. They are most effective where there are financial incentives for industry participants to join an industry association, and the industry association has the ability to effectively monitor the behaviour of its members. This is not the case for recreational boat building where there is an industry association but it is believed that many builders are not members[4]. In these circumstances it is most likely that it would only be the responsible builders who would comply with a self regulation scheme. Government regulation is common in areas where the safety of the public is at risk, ie it is not only the safety of the industry participants that is of concern but also the passengers carried, the occupants of other vessels, emergency service providers, etc. Self regulation schemes are not likely to place sufficient emphasis on third parties unless there are financial incentives to do so.

In summary there were three alternatives to the proposal considered in the development process as follows:

1 A full set of construction standards for recreational boats. This alternative was rejected in project REC2 and would be more costly than the proposal so it has not been formally assessed in the Regulatory Impact Statement.

2 No regulation of recreational boats. This alternative is not considered feasible because the number and severity of incidents indicate that some standards are necessary to meet the objective to enhance the safety of persons on recreational boats (see Section 2). It is therefore not considered further.

3 Self-regulation in the form of an industry code of practice for fixing plates or adopting certain standards. This option is not considered feasible because the nature of the industry is such that there are no mechanisms available to any industry body to ensure compliance by all builders. It is therefore not considered further.

The formal assessment of the proposal in Section 4 is relative to the status quo, ie no regulation of recreational boats. Nevertheless, there are alternatives to some of the components of the proposal which are discussed in the next section.

3.3 Alternatives to Components of the Proposal

As part of the development of the proposal alternatives to several components were identified and subject to public comment. The alternatives are not formally assessed in Section 4 as it is either unlikely that they will give rise to significant costs or benefits or there are insufficient data to make estimates. The views of interested

[3] Under implementation arrangements, it is likely that owner-builders will only be required to fit an ABP if the boat is sold within 5 years of being first used.

[4] There is no information on the number of boat builders. As noted in Section 7, whether a register of boat builders is required as part of implementation requirements is yet to be determined.

parties provided guidance on the design of the final proposal. The procedure adopted was for public comment to be received and summarised by the NMSC secretariat, reviewed by a Reference Group of government and industry representatives followed by recommendations to the NMSC on the appropriate course of action (see Section 5 for further detail).

3.3.1 Buoyancy Breakpoint

Comment was sought on the appropriateness of the proposed 6m length breakpoint for some of the fields on the ABP. This breakpoint is somewhat arbitrary, as are most such length breakpoints in marine standards.

There is a rationale for treating small and large boats differently. There is less practical risk to larger boats of swamping because the boats have greater freeboard, are frequently of non-open design, and have a bigger reserve of buoyancy. It is still imperative that bigger boats survive conditions in which swamping does or may occur, but that is frequently achieved using other methods such as watertight integrity. The marine incident data reported above support the proposition that swamping is a problem where boats are small.

There is less of a rationale for the selection of the length of 6m as the breakpoint. The ISO and ABYC[5] recreational boats standards use 6m, while AS1799 uses 7.5m.

About 35% of the public comment respondents supported 6m and just over 40% 7.5m[6]. The Reference Group supported 6m as this length is compatible with international standards and existing Australian legislation.

3.3.2 Buoyancy Performance Criteria

The buoyancy standard will be measured by a statement as to whether the boat has Basic Flotation or Level Flotation.

The performance criteria for basic and level flotation are based on a review of definitions in other standards. The two factors important in deciding on the definitions were simplicity and compatibility with any national or international standard, as permitted by the proposal. Simplicity was achieved by not requiring definitions of any of the terms used within the definitions of the performance criteria.

Almost 70% of respondents supported the definitions in the draft proposal, with the remainder supporting those in the ABYC standard. The Reference Group supported the proposal but suggested that a note be included in the proposed standard that when applying a national or international standard to determine buoyancy the definitions used should be from the standard used. This is included in the revised proposal.

[5] Actually 20ft which approximates 6m.

[6] The percentages relate to those that commented on a specific component, not the total number of respondents.

3.3.3 Buoyancy Field

The draft proposal allowed the buoyancy standard field on the ABP, for recreational boats less than 6m in length, to be left blank. The boat user would then have been faced with a blank field, with one of two very different meanings:

1 the boat is not built to one of the two buoyancy performance criteria; or
2 the builder chose not to fill it the buoyancy field.

This situation was unlikely to meet the main objective of the ABP to enhance safety by providing information to boat users. Nevertheless, just over half the respondents supported it. The Reference Group recommended that something should be placed in the field, but not 'nil'. The proposed standard requires the words "insufficient flotation" where recreational boats meet neither the basic nor level buoyancy performance criteria.

The question then arises whether recreational boats should to be built to comply with any buoyancy standard or, in other words, whether "insufficient flotation" can be used indefinitely. It is expected that, over time, boat builders will not do so as a result of consumer pressure created by the field being included on the ABP. However, requiring a buoyancy standard could be expected to have the effect that more of the fleet will have buoyancy fitted over a shorter period of time with consequent safety improvements.

Just under half of respondents supported a buoyancy requirement and just over half did not. The Reference Group supported a buoyancy requirement but with a transitional period to allow boat builders to design and test boats to the required standard. The proposal is that the transition period be 3 years from the approval of the standard (expected to be the middle of 2006).

3.3.4 Engine Power and Weight

The draft proposal allowed the outboard engine power and weight fields on the ABP, for recreational boats 6m or more in length, to be left blank.

This was because outboard engine power and weight are relatively more important factors in determining the buoyancy of small boats than large boats, engine weight can affect a boat's attitude in the water in the unswamped condition, and outboard engines can easily be changed. Outboard engines are generally not used to power large boats; they are more likely to be powered by inboard engines and stern drives.

Provision of outboard engine weight and power on the ABP would satisfy the main objective of the proposal, ie to enhance safety by providing boat users with information about safe use. There was strong support for including outboard engine power and weight in the public comment (81%) and the Reference Group also supported inclusion. The revised proposal requires weight and power to be included where an outboard engine is used and in other circumstances for the information to be omitted or the words "not applicable" to be displayed (see Table 3.1).

3.3.5 Construction Standards

Standards for the construction of recreational boats are not being proposed at this stage for the reasons discussed in Section 3.2. This was supported by 62% of respondents as part of the public comment and by the Reference Group.

Despite this, builders could include the construction standard used as an extra means to meet the general objective of the proposal to improve safety by providing information to boat users. It would not be inflexible because any recognised national or international standard could be used, or the field left blank if no standard was used. This alternative was supported by 38% of respondents. The Reference Group recommended that the field by optional, ie it should not be included in the required fields (in Table 3.1) but could be added by any builder who so desired.

A further alternative explored in the public comment was to require builders to state the national or international standard used to determine engine power rating, engine weight, person capacity, load capacity and buoyancy. This alternative was supported only by 40% of respondents. The Reference Group recommended that the field be optional, i.e. it should not be included in the required fields (in Table 3.1) but could be added by any builder who so desired.

3.3.6 Symbols on the ABP

The draft proposal allowed information on an ABP to be displayed using symbols or words. This was supported by respondents, of whom 82% agreed that symbols are useful, 65% that there should be a choice between symbols and words, and 72% that symbols are preferred to words. The Reference Group supported the use of symbols because they assist understanding of the information displayed.

Irrespective of whether symbols or only words are used to display the information, it is anticipated that marine authorities will provide information in their safe boating guides as to how to interpret an ABP. Similarly, builders are expected to provide similar information in a boat's operating manual provided to owners.

3.3.7 Recreational Boat Types

The draft proposal required all new recreational boats to be fitted with an ABP and public comment was sought on whether this was appropriate. About one third of respondents felt that some types of boats should not have to fit a plate. For example:

- racing boats which are purpose designed and could not race if required to meet the buoyancy requirement;
- sailing boats which are inherently buoyant;
- non-powered boats, harbour dinghies and paddle canoes which would face major design problems in meeting the requirements or do not operate in hazardous areas; and
- personal water craft which carry a limited number of persons.

The Reference Group recommended that the way to determine which boats should be exempt is to examine existing standards and adopt the same boat types. This recommendation has been adopted in the revised proposal. The recommendation implies that non-powered boats will be covered, as was supported by almost 80% of respondents.

There was some comment about the inclusion of inflatable boats given that imported ones would probably have to be unpacked for a plate to be fitted. The Reference Group supported the need for plates on inflatable boats but noted that there are practical problems which need to be considered as part of the implementation process (see Section 7).

3.3.8 Other Plate Types

The public comment raised the issue of whether an ABP should be required if boats already had a CE (European standard) or NMMA (USA standard) plate fitted. It would obviously be inappropriate to require another plate if all the information is already contained on an existing plate. The Reference Group recommended accordingly and this will be considered as part of the implementation process.

4 COSTS AND BENEFITS

4.1 Number of Recreational Boats

The costs and benefits of the proposal are dependent on the number of recreational boats affected by it. An ABP will be required to be fixed to specified new recreational boats so it will take some time for the whole fleet to be covered and for some of its effects to be felt. It is estimated that there are about 628,000 registered recreational boats potentially affected by the proposal, with about 31,000 new recreational boats registered each year (see Appendix A). By length, the estimated numbers of recreational boats are as follows:

Length	Fleet Size	New pa
< 6m	565,000	27,000
≥ 6m	63,000	4,000
Total	**628,000**	**31,000.**

The costs and benefits are also dependent on existing practice and how the information on the ABP affects the behaviour of boat builders and boat users.

4.2 Costs

4.2.1 Plate Costs

If specified new recreational boats require a plate the cost is estimated to be \$620,000 pa. This is obtained from multiplying the 31,000 boats by \$20 per plate. The unit cost of manufacturing and fitting a plate was supplied by 5 boat builders with a range in cost of \$10 to \$30. The simple average of the unit costs was \$17 per plate.

Industry advice is that most builders already fit a plate of some kind to their boats so the costs will be significantly lower, although these plates do not contain the sorts of information required by the proposal; they tend to only contain information about the builder, the model of the boat and the HIN. Based on 80 per cent of recreational boats already having a plate, the plate cost would be \$124,000 pa.

4.2.2 Construction Costs

Boat construction costs may increase particularly if boats do not currently meet one of the buoyancy performance criteria. Estimates of costs were obtained from 5 boat builders for different length boats constructed in aluminium and fibreglass for achieving basic and level flotation. As buoyancy is critically related to loading and engine power and weight, these costs can be expected to cover all construction matters required on the plate. There was a wide range in the costs provided, depending on the buoyant material used and the construction material of the boat. Indicative construction costs are shown in Table 4.1, along with the average cost weighted by boat length. These are construction costs while the increased price paid by a boat buyer can be expected to be about double the construction costs.

It is not known with any certainty how many recreational boats currently meet either one of the flotation performance criteria. A survey of dinghy and runabout users in Tasmania indicated that about 60 per cent of them believe that their boats would stay upright if swamped (Level Flotation), although on the basis of the location of the buoyant material it was considered that the proportion could be lower (MAST 2000). The BIA survey of boat builders (see Appendix B) indicated some confusion on whether boats were built to a standard, although 70 per cent supported inclusion of the buoyancy standard on the ABP. Without information on the number of new boats currently meeting the buoyancy standard, it is not possible to estimate increased construction costs with any precision.

Table 4.1: Construction Cost of Buoyancy Standard ($ per boat)

Length (metres)	Basic Flotation	Level Flotation
Up to 3	100	200
3 to 4	200	400
4 to 5	350	700
5 to 6	700	1,000
Average cost	**332**	**600**

Note: The lowest and highest cost provided for basic flotation were $90 and $1,200 respectively. The lowest and highest cost provided for level flotation were $90 and $2,400 respectively.

Table 4.2 shows a range of estimated costs, depending on how many recreational boats currently meet the proposed buoyancy standard.

Table 4.2: Fleet Costs by Fleet Share Currently Meeting the Buoyancy Standard ($'000)

Fleet Share	Basic Flotation Cost	Level Flotation Cost
0%	8,975	16,207
20%	7,180	12,966
40%	5,385	9,724
60%	3,590	6,483
80%	1,795	3,241

Note: These are the additional costs of construction to meet the buoyancy performance criteria.

4.2.3 Administration Costs

Marine authority costs are likely to increase as result of administration and enforcement of the requirement to fit an Australian Builder's Plate. An estimate of $70,000 pa for enforcement was included in the draft Regulatory Impact Statement for public comment and was criticised by one commentator for being too low. It was based on 600 boat builders and 3 hours per inspection. Costs could be higher depending on the arrangements for identifying boat builders and their geographical location within any one State or the Northern Territory. Even if the costs were double those estimated, they would remain small in comparison to the large range in the construction costs in Table 4.2. Administration costs are expected to be negligible if implementation occurs through existing registration schemes; there may be some costs in the Northern Territory where recreational boats are not required to be registered. No costs are not included in the assessment as implementation will be through legislative requirements which have yet to be finalised.

There may be some administration cost savings to marine authorities in NSW, Queensland and Tasmania if their existing capacity labels are no longer required; no cost savings have been assessed as it is assumed that capacity labels will be retained for boats which do not require an ABP and in any event the costs of the labels are minimal[7].

Any administration costs to boat builders are included in the plate costs and compliance costs in the construction costs. It has not been possible to separately estimate the level of compliance costs. Compliance by boat builders will require them to select a national or international standard that covers the information to be placed on the ABP. These standards have different methods of determining the information requirements. Generally, it is the case that engine power rating is calculated using a formula while practical tests are required to determine loading and buoyancy. The standard does not prescribe who must undertake practical tests; if an accredited tester is used there are likely to be higher costs involved that if the testing is done in-house. An accredited tester may be used if the builder wishes to sell boats in other countries, in which case the costs of the testing will be required whether or not the proposal proceeds. The compliance cost per boat will further depend on the number of boats of any one type/model that a builder manufactures; there is no information on the number of boat builders or the level of their production.

4.3 Benefits

4.3.1 Search and Rescue

Search and rescue costs can be expected to decrease if the ABP achieves its objective of raising standards by providing consumer information with a consequent improvement in safety. The reduction in costs cannot be estimated due to the lack of information on rescue costs and the number of recreational boats involved in rescues.

4.3.2 Safety

Safety can be expected to improve if the ABP achieves its objective of raising standards, particularly for buoyancy. As discussed in Section 3.2, about half the fatal and serious injury incidents could be affected if recreational boats remain afloat. The estimated cost of these incidents is about $52 million pa (see Appendix A). The actual level of the safety benefit in any one year will be dependent on four main factors:

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7 Tasmania advised that the cost per label is 28 cents. As labels are sent out with registration forms changes to administration costs are not expected.

1 The number of boats which are fitted with either basic or level flotation. The number fitted will increase over time as more new boats enter the fleet, eg in the first year 27,000 boats or 4 per cent of the fleet could potentially be fitted while in the fifth year 135,000 or 22 per cent could potentially be fitted.

2 Whether basic or level flotation is fitted. It is expected, all other things equal, that level flotation would reduce the severity of incidents to a greater extent.

3 How effective the buoyancy standard is in reducing capsize/swamping incidents and/or their consequences. In other words, is it likely that if all the fleet met the buoyancy standard incidents would be reduced by 10, 30, 50 per cent or some other figure?

4 Whether boat users take heed of the information on the ABP with respect to loading and safe operation.

Nevertheless, the relatively high costs of existing incidents indicates a significant level of potential safety benefits.

4.4 Overall Results

It has not been possible to quantify the costs and benefits with sufficient certainty to enable a direct comparison of the costs and benefits overall. The main costs will be associated with building basic or level flotation into recreational boats. This will be met ultimately by boat users as they purchase their boats. This cost item can be expected to remain relatively constant over time.

The main benefits will be the safety improvement expected from buoyant recreational boats which are not overloaded. The benefits will accrue to boat users and the community due to reductions in the costs of marine incidents. This benefit item can be expected to increase over time as more boats are fitted with an appropriate flotation system.

There are a number of assumptions used in the analysis, some of which would tend to improve the overall results and others not. On balance, the analysis indicates that the proposed Australian Builder’s Plate has the potential to achieve safety benefits which exceed its costs.

As noted above, the main costs of the proposal will ultimately be borne by boat users in the form of higher prices of boats. Depending on the level of competition in boat building, some of the costs may be absorbed by boat builders. It is unlikely that the proposal will adversely affect the businesses of boat builders. In consultation there were concerns raised by builders who export boats built to the European standard. These concerns related to the need for an extra plate (as one is already required by the EN standard) and to having to build to separate standards. The latter is concerns are addressed by the proposal by allowing any national or international standard to be used. The former, ie requiring another plate is being considered as part of the implementation arrangements (see Section 7).

5 CONSULTATION

There has been extensive consultation in the development of the proposal. In March 1999 the NMSC commenced a study to investigate the need for national recreational boat construction standards. As part of that study surveys of boat users and boat builders were undertaken which asked for responses on construction standards and a Australian Builder's Plate. There was generally strong support for both, although industry concerns were later raised about the use of prescriptive standards for recreational boats.

In November 2000 a workshop, jointly convened by the NMSC and the Boating Industry Association (BIA), discussed the ABP. A discussion paper was presented which canvassed the broad alternatives discussed in Section 3.2 (NMSC 2000). The workshop participants called for an industry driven scheme which would ensure that:

- recreational boats are manufactured to a standard to facilitate greater safety;
- compliance plates are introduced for all new recreational boats; and
- mandatory minimum standards are introduced for stability, hull construction and internal buoyancy.

A Reference Group was then established to develop the draft proposal. It comprised representatives of boat builders and designers, and marine safety regulators. The Reference Group met several times during the development of the standard. Not all of the recommendations of the Reference Group were included in the draft proposal, with those matters highlighted in the draft proposal and specific comment sought as part of the public consultation process.

The draft proposal was circulated for public comment in August 2002 and 82 submissions were received. A new Reference Group (larger than the original one but including a number of the members of the earlier one) was established and met in December 2002 to review the public comment and make recommendations to the NMSC on the course of action to be adopted. The comments and the recommendations are summarised in Appendix D. Many of the matters raised have now been incorporated in the revised standard, as discussed in Sections 3 and 4.

Several comments related to implementation, which is now being considered by a group of officials, taking into account the matters raised in the public comment. As the implementation arrangements have not been finalised, their effects are not covered in this Regulatory Impact Statement. Section 7 provides more information on implementation.

Other matters raised in the public comment were as follows:

- There was support for the draft proposal that boat builders include additional information on plates. This has been retained in the revised proposal.

- There was support for the list of relevant standards contained in the draft proposal. It was noted that the inclusion of the words "relevant national or international standard" covered all eventualities.

- The Reference Group recommended that the responsibility for the need and content of warning statements concerning person and load capacity should be the responsibility of boat builders, as was contained in the draft proposal. It was suggested that the statements should be based on the standard used to determine person and load capacity, and a note to this effect has been included in the revised proposal.

- The wording of the warning statement regarding alterations to a boat in the draft proposal was endorsed. It is included because an owner needs to be aware that alteration may mean that the information on a plate is no longer valid and builders need some protection in such events. In the worst case, the information on the ABP may be misleading, eg the boat's maximum person and load capacity may be reduced. The warning statement has been retained in the revised proposal.

- The use and meaning of the term National Compliance Plate used in the draft proposal was queried by several commentators. It has been amended to Australian Builder's Plate following the recommendation of the Reference Group.

- In the draft proposal, the definition of boat length came from the National Standard for Commercial Vessels. This was thought to be inappropriate for recreational boats, especially when existing standards for recreational boats contain methods for measuring boat length which are applicable to them. The Reference Group recommended the use of the definition which is in both the ISO866 and ABYC standards. This has been included in the revised proposal.

6 EVALUATION

6.1 Basis of the Proposal

The proposal is for the fitting of an Australian Builder's Plate to specified new recreational boats, with the plate containing information which will assist safe boat use by boat users. The main information relates to the buoyancy of a boat and its safe loading.

The proposal is in line with the overall objective in the National Marine Safety Strategy, ie to establish a harmonised national system which has as its principal aim the protection of life in Australian waters. The Strategy identifies two strategies specifically addressed to recreational boats:

1 develop and encourage the adoption and use of a common framework of objectives and standards for recreational boats; and
2 encourage competency and responsible use of recreational boats.

The proposal for an Australian Builder's Plate (ABP) for recreational boats is covered by both strategies. It has been developed using a common framework and the information on the plate is designed to encourage the use of boats for the purposes intended.

The proposal was developed over a long period of time with considerable input from industry. The broad alternatives considered were:

1 comprehensive construction standards for recreational boats;
2 no regulation, ie maintenance of the status quo;
3 self-regulation in the form of an industry code of practice; and
4 regulation of the main factors affecting safety outcomes as contained in the proposal.

The preferred alternative, which is represented by the proposal, is the regulation of the main factors affecting safety outcomes. Comprehensive construction standards were not pursued because of the difficulties which could be faced by industry in meeting specific standards and the lack of a strong safety justification for many matters which would be covered by them. Two other alternatives were rejected on the grounds that they are not feasible. Firstly, no regulation was rejected because marine incident data indicate that the costs of buoyancy and loading related incidents are significant. About half of all recreational boats incidents and perhaps more than half of the fatalities could be affected if boats remained afloat. Secondly, self-regulation was rejected because the nature of the industry is such that there are no mechanisms available to any industry body to ensure compliance by all builders.

6.2 Effects of the Proposal

While the overall thrust of the proposal is generally agreed, there are a significant number of components of the standard which could be varied. Specific comment was sought on these matters as part of the public consultation process and they have been incorporated as appropriate (see Section 3.3). No formal assessment of them has been undertaken, either because the effects are not expected to be significantly different to the proposal or there is insufficient information to do so.

Table 6.1 summarises the effects of the proposal, and quantifies the effects where possible. The main costs will be associated with building basic or level flotation into recreational boats. This will be met ultimately by boat users as they purchase their boats. As noted at the bottom of the table, retail prices are expected to be about double the construction costs.

Table 6.1: Costs and Benefits of the ABP Proposal

Cost/Benefit Item	Vessels Affected	Cost/Benefit	Comment
Plate costs	31,000	$124,000 pa	Assumes that 80% of boats already have plates.
Construction costs[1]	27,000	Cost/boat: - basic $332 - level $600. Up to $16.207m pa in total.	Depends on how many boats currently meet the buoyancy standard and whether basic or level flotation is fitted.
Reduced administration costs/capacity labels	na	nq	Capacity labels currently issued in NSW, Queensland and Tasmania may not be required; any savings likely to be small.
Search and rescue	31,000[2]	nq	Should decrease as fewer marine incidents.
Safety	31,000[2]	Up to $52m pa.	Affected by number of buoyant boats, type of flotation, effectiveness of the buoyancy standard, and compliance by boat users.

na = not applicable, nq = not quantified.

Note: 1 The effect on the retail price of a boat is expected to be about double the effect on construction costs.

2 The number of vessels affected in the first year; the number will increase by 31,000 in each subsequent year.

The main benefits will be the safety improvement expected from buoyant recreational boats. The benefits will accrue to boat users and the community due to reductions in the costs of marine incidents. This benefit item can be expected to increase over time as more boats are fitted with an appropriate flotation system.

As noted in Section 4, there may be some increase in administration costs, depending on the implementation arrangements which have yet to be finalised.

The balance between the benefits and costs cannot be determined with certainty. It depends largely on the how many recreational boats are currently fitted with flotation systems which meet the buoyancy standard, and the effectiveness of the buoyancy standard and the loading requirements in improving safety.

6.3 Objectives and Competition

The main objective of the proposed ABP is to enhance the safety of persons using recreational boats by providing information to boat users on the buoyancy of a boat and its safe loading.

Other objectives relate to the work of the NMSC more generally. They are to achieve:

- common standards and mutual recognition of the standards by all marine authorities; and
- a performance basis so that requirements are flexible enough to enable innovation and to vary depending on individual circumstances.

The proposal meets these objectives by including information on the buoyancy performance criterion used to build a boat and its safe loading level. Warning statements may also be included by builders to encourage boat users to vary loading in less than ideal circumstances.

Implementation arrangements for the proposed standard will be included in marine safety legislation to ensure that the standard is adopted in a consistent manner by marine authorities. The standard does not prescribe the use of particular standards and uses performance criteria for the specification of the buoyancy standard.

The proposal has no anti-competitive effects. It is a safety standard which will apply to specified new recreational boats.

6.4 Consultation

The proposal was developed in a consultative manner as discussed in Section 5. The general approach and the need for some regulation of buoyancy were endorsed by representatives of the recreational boating industry. Industry representatives were active participants in providing public comment and its assessment. The recommendations of the Reference Group established to review the public comment are included in the revised proposal.

7 REVIEW

The proposed national standard for a Australian Builder's Plate is now ready for submission to the Australian Transport Council (ATC) for approval. It is expected that plates will need to be fixed within 2 years of approval and one of the two buoyancy performance criteria adopted within 3 years of approval.

Following ATC approval, it is expected that marine authorities in each State and the Northern Territory will adopt the standard by amending their existing legislation using common legislative requirements. This will ensure consistency in the adoption of the standard.

As the ABP is primarily an education and information mechanism, the common legislative provisions that adopt the proposed standard will be designed to ensure that:

- a plate is fixed to those boats requiring one;
- the proposed standard is used for determining the information to be displayed, and how and where the plate is to be located and fixed on a boat; and
- builders and importers fix the plate to those boats requiring one.

As part of the public consultation process, several matters relating to implementation arrangements were raised. A group of officials is currently developing the arrangements while taking those matters into account, in particular:

- consistency in adoption by States and the Northern Territory (where boats are not required to be registered);
- compliance and enforcement with respect to fixing, removing or tampering with a plate, and alterations to a boat which affect the information on the plate;
- penalties for non-compliance; and
- administration, eg whether a register of boat builders is required to ensure compliance.

There are several other matters which the NMSC intends to pursue in conjunction with industry to facilitate implementation. They are:

- a common plate design and size;
- how plates can be fitted to inflatable boats;
- whether plates are required for CE and NMMA plated boats;
- methods to meet either of the two buoyancy criteria;
- whether a register of boat builders is required and, if yes, the best way to achieve that; and
- the need for guidance material relating to all or parts of an owner's operating manual. A manual would be another mechanism for ensuring that safety information was available to boat users. Many builders already provide an owner's manual but the BIA has offered to take the lead in developing a generic owner's operating manual that could be distributed to low volume builders that currently do not provide one.

It is expected that the national standard will be reviewed from time to time to ensure continuous improvement and to ensure that the objectives of the standard continue to be met. This process will be assisted by the outcome of the implementation process by marine authorities.

REFERENCES

Bureau of Transport Economics (BTE) (2000) “Road Crash Costs in Australia” *Report 102* Canberra.

Marine and Safety Tasmania (MAST) (2000) *Recreational Boating Safety Review* April.

Maritime Safety Authority (MSA) (1999) *Final Report of the Pleasure Boat Safety Advisory Group* MSA, Wellington, New Zealand.

Market Survey Centre (MSC) (2000) Prepared for the National Marine Safety Committee by the Boating Industry Association, August.

NMSC (1998) *National Marine Safety Strategy: A Strategy for Small Commercial and Recreational Vessels in Australia* Published under the authority of the Australian Transport Council, August.

NMSC (2000) “Design and Construction of Recreational Boats: A Discussion Paper” National Compliance Plate Program Workshop, November.

O’Connor P (2002) “Assessment of Fatal and Non-fatal Injury due to Boating in Australia” Finders University of SA for the NMSC, February.

Taverner Research Company (1999) *Recreational Boat Owner Survey* Prepared for the NMSC.

Thompson Clarke Shipping Pty Ltd (1995) *Review of Maritime Safety Arrangements in Australia*.

Thompson Clarke Shipping Pty Ltd (1999) *Census of Non-SOLAS Users of Marine Radio Distress and Safety Services* Final Report, November.

Waterways (1999) *New South Wales Boating Incident Report 1 July 1997 – 30 June 1998* Waterways Authority of NSW, January.

APPENDIX A: DATA USED

A.1 Boat Numbers

There is no single source for the number of recreational boats. The data used for the estimated total fleet affected were estimated from the following information:

- Data on boat type and length supplied by Marine Safety Victoria (MSV) for June 2002. Yachts and air cushion boats were excluded from the totals (1.4 and 0.1 per cent of the total respectively).

- Data on boats by length supplied by Queensland Transport for March 2002. The total was reduced by 1.5 per cent for yachts and air cushion boats on the basis of the Victorian data.

- Data on boat type and length supplied by Transport SA for April 2002. Yachts and air cushion boats were excluded from the totals (4.3 and less than 0.1 per cent of the total respectively).

- Data from the Tasmanian review of recreational boat safety (MAST 2000) on boat type and length. The total was increased to the 2002 annual report figure and reduced by 1.5 per cent for yachts and air cushion boats on the basis of the Victorian data.

- The NSW and WA 2002 annual report figures were used, reduced by 1.5 per cent for yachts and air cushion boats on the basis of the Victorian data and split by length on the basis of the average of Victoria, Queensland, SA and Tasmania.

- The NT total was from figure came from Thompson Clarke (1995), and was reduced by 1.5 per cent for yachts and air cushion boats on the basis of the Victorian data and split by length on the basis of the average of Victoria, Queensland, SA and Tasmania.

The data used for the estimated number of new recreational boats came from the following sources:

- The increase in total recreational boats registrations from June 2001 to June 2002 supplied by Marine Safety Victoria (MSV) and the WA Department of Planning and Infrastructure. The difference may not be the same as the number of new boats.

- The increase in recreational boats registrations by length from March 2001 to March 2002 length supplied by Queensland Transport. The difference may not be the same as the number of new boats.

- New registrations by length supplied by Transport SA (MSV) for 1 May 2001 to 30 April 2002.

- The average share of new registrations in total registrations calculated from the above (5 per cent) was then used to estimate the total new registrations for Australia.

- The NSW Boating Industry Association (BIA) supplied data on production and imports estimated from surveys of BIA members throughout Australia (33,360). The production figures were below but consistent with the figures estimated from registration data. The production figures include exports so are likely to be over estimates of boats affected by the proposal.

The resulting estimated numbers of recreational boats are shown in Section 4.1.

A.2 Incidents

The number of recreational boat incidents by severity was estimated from a variety of sources as listed in the notes to Table A.1. The procedure was to use data from the available sources and then estimate an Australia-wide total based on incident rates per 1000 registered boats. The estimated recreational boat fatalities compare reasonable with those estimated for all marine incidents in O'Connor (2002). The average number of fatalities over 20 years was 78 pa, but over the last 5 years, 54 pa. This suggests that fatalities associated with recreational boats, as is expected. The estimated recreational boat injuries are probably under-estimated relative to the data in O'Connor (2002) which contains an average of about 900 pa.

Table A.1 Estimated Recreational Boats Incidents and their Cost

	Deaths pa[1]	Boats[2]	Deaths/ 000boats	Injuries[3]	Boats[2]	Injuries/ 000boats
Tasmania	3.5	19,931	0.18			
NSW	15.8	184,225	0.09	36.5	184,225	0.59
Queensland	7.0	165,354	0.04			
WA	4.8	68,000	0.07	12.7	68,000	0.19
Victoria	10	143,676	0.07	18	143,676	0.13
Sub-total	**41.1**	**581,186**	**0.07**	**67**	**395,901**	**0.35**
SA		49,467				
NT		10,000				
Australia (est)	**45.3**	**640,653**	**0.07**	**108.7**	**640,653**	**0.35**
Unit cost ($'000)	1,500			325		
Total cost ($m)	**67.9**			**35.3**		

Note: 1 13 year average from MAST (2000), 8 year average from Waterways (1999) and annual reports, 6 year average from QT (2001), 6 year average from WA DPI annual reports, 13 year average from data supplied by MSV.

2 Estimated as described in Section A.1; includes all recreational boats and implies that 12,000 registered boats will not be covered (640,000-628,000).

3 In NSW, serious injuries only were included; other States did not differentiate between serious and minor injuries.

Costs were estimated using road accident cost rates for fatalities and serious injuries (BTE 2000). These cost rates include person and vehicle costs.

APPENDIX B: SURVEYS

B.1 Boat Owners

In 1999, the NMSC commissioned Taverner Research Company to undertake a survey of recreational boat owners on their attitudes to safety (Taverner 1999). The survey was distributed to about 7% of registered recreational boats owners with registration renewal notices in July 1999 (NSW, Qld, Victoria, WA and SA). There was a 16% response rate or 5,586 survey forms returned.

The majority of responses were from owners of dinghies/runabouts (49%), trailerable cabin/half cruisers (26%), speed boats (9%), non-trailerable cabin cruisers (6%) and sail boats (8%). These are broadly in line with population data in Thompson Clarke (1999), although open boats (dinghies/runabouts) are under-represented.

Relative to Thompson Clarke data, small boats (less than 4 metres) were under-represented and large boats (over 5 metres) were over-represented in the survey responses, both by significant amounts.

With respect to construction standards, 93% of respondents agreed that there was a need for mandatory minimum standards. Significant proportions also agreed that their own boat (95%) and all recreational boats (88%) had a satisfactory level of safety. This is despite the fact that there are no mandatory standards currently.

Scores less than average were given by the owners of sail-racers (89%) and sail-cruisers (84%) to the question on the need for mandatory minimum standards.

The survey respondents were asked to rank the importance of several construction standards. The maximum score possible was 5, with the following results:

4.65	internal buoyancy;
4.64	stability;
4.59	hull construction;
4.52	mechanical installations; and
4.49	installation of LPG systems for appliances.

Differences occurred by boat type as shown in Table B.1. It can be seen that the owners of smaller boats were more likely to support the construction standards except the installation of LPG systems for appliances.

The survey respondents also ranked the importance of several items of information which could be included on an NCP, with the following results:

4.59	maximum persons allowed on upper deck or fly bridge;
4.56	maximum persons allowed on board;
4.45	maximum allowable power rating of any engine that may be fitted; and
4.31	the intended area of operation.

Table B.1: Importance of Construction Standards for Recreational Boats

Standard	Boat Types with Greater than Average Ranking	
Internal buoyancy	Open	4.72
	TCC	4.69
Stability	TCC	4.69
	Open	4.66
Hull construction	TCC	4.68
	Open	4.60
Mechanical installations	TCC	4.60
	Others	4.60
	Open	4.54
Installation of LPG systems for appliances	NTCC	4.62
	Sail-cruiser	4.51

TCC = Trailerable cabin/half cruiser, NTCC = Non-trailerable cabin cruiser.
Source: Taverner Research Company (1999).

Differences in the importance rating for information occurred by boat type as shown in Table B.2. It can be seen that the owners of smaller boats generally gave higher ratings than owners of larger boats.

Table B.2: Importance of Items of Information on NCP

Item of Information	Boat Types with Greater than Average Ranking	
Maximum persons allowed on upper deck or fly bridge	Sail-racer	4.75
	TCC	4.62
	Open	4.61
Maximum persons allowed on board	TCC	4.62
	Others	4.60
	Open	4.59
Maximum allowable power rating of any engine that may be fitted	TCC	4.51
	Open	4.51
Intended area of operation	TCC	4.39
	Others	4.34

TCC = Trailerable cabin/half cruiser.
Source: Taverner Research Company (1999).

B.2 Boat Builders/Manufacturers

A survey of participants in the recreational boating industry, ie manufacturers, designers, builders, dealers, volunteer rescue organisations, insurance agents and regulatory organisations, was commissioned by the NMSC in 1998. 1,050 forms were distributed, with 90% or respondents agreeing that recreational boats should be built to a standard. The response rate of 15% was relatively poor and included few builders/manufacturers. As a consequence, the Boating Industry Association (BIA) offered to undertake a survey via personal contact with its members. The survey covered 119 boat builders out of 154 contacts (77% response rate)[8]. The respondents built mainly small and/or medium-sized boats, used fibreglass or aluminium for the manufacture of boats, and the boats were mainly used for fishing or pleasure/leisure (MSC 2000).

An overwhelming majority of respondents (91%) agreed that recreational boats should be built to a standard. Other responses on standards indicate some confusion about what building to a standard meant to the respondents. For example:

- 78% agreed that boats should be built to recognised standards;
- there was very low awareness of the available standards (eg 23% mentioned AS1799, 13% ABYC and 10% CE); and
- 60% agreed that boats should be built to a single international standard.

It appears from the responses that 'building to a standard' included building to an internal standard set by an individual builder.

A small but significant number of the builders/manufacturers export vessels (actual numbers were not reported). The numbers built for export represent 10% or less of the business for 60% of those using the ABYC standard and 45% of those using the CE standard.

Survey respondents were asked to say what construction standards should apply. As shown in Table B.3, there appeared to be less support overall from builders than owners, although the support was still relatively strong. Builders gave less support to a standard for internal buoyancy than owners.

There was a difference in the standards included in the two surveys, with an instruction manual replacing mechanical installations in the builder/manufacturer survey.

Table B.3: Importance of Construction Standards for Recreational Boats

Standard	Respondents who Agree (%)
Hull construction	71
Stability	69
Internal buoyancy	64
Instruction manual	58
Installation of LPG systems for appliances	58

Source: MSC (2000).

Survey respondents were asked to say what information should be included on an NCP. As shown in Table B.4, the three most important items were hull identification number (HIN), maximum persons and maximum power. The ranking was very

8 The BIA supplied 346 contact names to MSC but 192 were unusable for various reasons, eg importer, not a boat builder, out of business, duplicates.

similar to that of boat owners, after taking into account the differences in the items of information included in the two surveys.

Table B.4: Importance of Construction Standards for Recreational Boats

Item of Information	Respondents who Agree (%)
Hull identification number (HIN)	90
Maximum persons on board for normal use	87
Maximum power rating and weight of any engine	87
Manufacturing standards if applicable	81
Internal buoyancy if fitted	70
Recommended maximum safe operating conditions	61

Source: MSC (2000).

The final question related to responsibility for the administration of the NCP. Multiple responses were permitted, giving:

45% industry;
32% other;
15% Commonwealth government; and
12% State governments.

During the development of the proposal, the BIA and boat builders expressed interest in administration as a mechanism to encourage membership and to raise funds for the industry association from the sale of plates.

APPENDIX C: SAFETY REVIEWS AND DATA

C.1 Tasmania

As part of the Recreational Boating Safety Review (MAST 2000), the Coroner's reports of fatal boating accidents from 1987 to 1999 were analysed. In those 13 years there were 46 deaths, with the main characteristics of the accidents being:

- all the deaths occurred in the water;
- 10 people were wearing PFDs but still died;
- all people were experienced recreational boaters;
- the fatalities occurred in all types of waters (eg inland, inshore, offshore) with most in sheltered waters;
- the most common types of boats being used were runabouts/dinghies;
- the majority of incidents involved swamping and capsizing (47%), followed by victims falling or being thrown out of a boat (24%); and
- the fatalities occurred in all seasons.

A large scale survey of the owners of registered recreational boats was undertaken as part of the review. Boats which have no motor or a motor under 4HP are not required to be registered so were not included in the survey. There were 3 questions in the survey related to vessel standards. 86% of respondents believed that recreational boats should have a capacity plate fitted showing the loading and engine power.

Respondents were asked whether they thought their boat would remain upright if swamped, with the results shown in Table C.1. Although the majority thought their boats would remain upright, there were significant minorities of small boat owners who did not know.

Table C.1: Recreational Boats Remaining Upright in the Event of Swamping (per cent)

Boat Type	Upright	Not Upright	Don't Know
Dinghies	63	5	31
Runabouts	54	7	38

Source: MAST (2000).

The location of buoyant material was sought as a check on the flotation potential of vessels (see Table C.2). Buoyant material under floor and in seats is not likely to keep a vessel upright, especially if it has a motor fitted. It is likely to mean that the boat will float upside down in which case access to safety equipment is likely to be difficult if not impossible. This means that boat owners are likely to have been optimistic in their assessment of the ability of their vessels to remain upright.

Table C.2: Location of Buoyant Material (per cent)

Location	Dinghies	Runabouts
Under floor	11	58
In seats	87	41
Along sides	5	12
None fitted	4	7

Source: MAST (2000).

Eight fatal incidents occurred at sea and the remainder in relatively calm waters, ie rivers (13), bays (5) and lakes (8)[9]. The location of incidents is likely to reflect in part exposure. MAST also conducted a survey of boat users that indicated at sea (greater than 2nm off the coast) was the most common place of boating for 17 per cent of respondents, compared to the 23 per cent of fatal incidents occurring at sea. This suggests that boating at sea is slightly more risky than boating on calm waters.

The review made two recommendations, which are now being implemented:

1 capacity plates in the form of stick on labels should be issued at the time of registration when there is no capacity plate fitted by the manufacturer; and
2 instructions on how to calculate boat loading and stick on numbers for the number of persons should be provided for inserting in the space provided on the label.

Stick on labels of the type recommended are currently issued in NSW and Queensland. The report concluded that it was impractical for Tasmania to mandate the capacity plates and buoyancy when so few boats are manufactured locally. The matter was to be raised with the NMSC for consideration of a national position.

C.2 New South Wales

Relevant data on recreational boats incidents in NSW is reported in the tables below. The data relates to 247 incidents involving only recreational boats, including 12 fatal incidents and 17 fatalities.

The largest number of incidents (119 or 35%) involved open boats. In terms of incidents per registered vessel, open boats were under-represented in the incident statistics. This was not the case in fatal incident statistics where open boats were involved in 46% of all fatal incidents.

The figures in Table C.3 confirm that there is a high risk of dying if the incident is ‘fall overboard’ or ‘capsize’.

9 The location of one incident was not recorded.

Table C.3: Incidents by Type, NSW 1997/98 (per cent)

Incident Type	All Incidents	Fatal Incidents
Collision with vessel	33	0
Capsize	11	46
Swamping	9	8
Person hit by vessel	7	0
Collision with fixed object	6	8
Grounding	5	8
Fire or explosion	4	0
Fall overboard	3	15
Sinking	3	8
Other	19	0
Total	**100**	**100**

Source: Waterways (1999).

Table C.4: Contributory Factors to Incidents, NSW 1997/98 (per cent)

Contributory Factor	All Incidents	Fatal Incidents
Lack of judgement	21	29
No proper lookout	20	0
Hazardous waters	9	18
Weather conditions	8	12
Excessive speed	5	0
Fault of equipment	4	0
Excess alcohol	2	18
Ill health	0	6
Other/Unknown	31	18
Total	**100**	**100**

Source: Waterways (1999).

Data on the location of incidents over a 6 year period to 1997/98 were analysed, with the following results for enclosed waters:

- 78 per cent of incidents;
- 67 per cent of fatalities; and
- 86 per cent of serious injuries.

These figures confirm the Tasmanian data and suggest that fatal incidents are more likely in open waters, but calm waters are not immune from recreational boats incidents with serious consequences.

C.3 Victoria

Relevant data on recreational boats incidents in Victoria is reported in this section. Three sets of data were available. Firstly, all reported incidents in 2000/01 as shown in Table C.5. One per cent of all incidents involve a fatality and 80 per cent involve no injuries or vessel damage.

Table C.5: Recreational Boating Incidents, Victoria 2000/01

Contributory Factor	Number	Per Cent
Fatal	7	1
Serious injury	18	2
Vessel damage only	64	8
Damage to other vessel	66	8
Lost vessel	13	1
No damage	652	80
Total	**820**	**100**

Source: Data supplied by the MSV.

The second set of data related to 20 fatal accidents involving 25 fatalities over a 3 year period (1998/99 to 2000/01). Table C.6 shows that the majority of fatal accidents occurred in recreational boats between 3 and 6 metres in length (75%). The last column of the table shows the proportion of boats by length from Table A.5 which indicates that fatal accidents involving small (<3m) and large (>5m) boats are over-represented. As noted below the table, the length categories for the two data sources are not exactly the same.

Table C.6: Fatal Recreational Boating Accidents by Vessel Length, Victoria 1998/99 to 2000/01

Length (metres)	Fatal Incidents	Fatalities	Share of Incidents (per cent)	Length (per cent)[1]
3	3	3	15	5
3-4	4	5	20	38
4-5	5	7	25	31
5-6	6	8	30	) 25
>6	2	2	10	)
Total	**20**	**25**	**100**	**100**

Sources: Incident and length data supplied by MSV.
1 First length category is <3m and last is >5m.

Approximately half of the fatal accidents and fatalities occurred on coastal waters and half on inland waters. This was also the case in the third data set which covered fatal accidents over an 11 year period (from 1987/88 to 1998/99). The most common vessel types involved in fatal accidents were dinghies (29%) and small fishing boats (28%) as shown in Table C.7. The table also shows that:

- fishing boats and yachts were more likely to be involved in fatal accidents on coastal waters; and
- canoes were more likely to be involved in fatal accidents on inland waters.

The most common accident type was ‘overturned’, with a higher proportion of this type of accident occurring on inland waters (55%) compared to coastal waters (44%) as shown in Table C.8. The table also shows that ‘fall overboard’ was the next most common accident type on both types of waters. Structural and/or machinery failures do not figure in the accident types but this is probably largely due to the method of categorisation.

Table C.7: Fatal Recreational Boating Accidents and Fatalities by Water and Vessel Type, Victoria 1987/88 to 1998/99

Vessel Type	Coastal Waters		Inland Waters		All Waters		Incident
	Accidents	Fatalities	Accidents	Fatalities	Accidents	Fatalities	Share (%)
Dinghy	15	20	15	19	30	39	29
Fishing boat	19	21	10	13	29	34	28
Canoe/kayak	1	1	11	14	12	15	11
Speed/ski boat	1	1	9	10	10	11	9
Yacht	8	11	1	1	6	12	9
Cabin cruiser	2	4	3	3	5	7	5
Personal water craft	3	3	1	1	4	4	4
Unknown	3	5	3	4	6	9	6
Total	**52**	**66**	**53**	**65**	**105**	**131**	**100**

Source: Data supplied by the MSV.

Table C.8: Fatal Recreational Boating Accidents and Fatalities by Water and Accident Type, Victoria 1987/88 to 1998/99

Accident Type	Coastal Waters		Inland Waters		All Waters		Incident
	Accidents	Fatalities	Accidents	Fatalities	Accidents	Fatalities	Share (%)
Overturned	23	34	29	36	52	70	49
Fall overboard	10	10	8	8	18	18	17
Swamped	5	5	2	4	7	9	7
Collision with vessel	3	3	4	4	7	7	7
Sank	3	5	3	4	6	9	6
Collision with object	2	2	3	3	5	5	5
Engine failure	0	0	1	1	1	1	1
Swept offshore	1	1	0	0	1	1	1
Unknown	5	6	3	5	8	11	8
Total	**52**	**66**	**53**	**65**	**105**	**131**	**100**

Source: Data supplied by the MSV.

APPENDIX D: PUBLIC COMMENT

This appendix contains a summary of the responses to the public comment and the recommendations of the Reference Group established by the NMSC to assess the comments received.

D.1 Respondents

There were 82 responses to the request for public comment on the draft proposal. One response was received just prior to the Reference Group meeting and is not included in the summary tables below. The comments in the submission were considered by the Reference Group in making its recommendations.

Responses by Area of Activity ***(multiple responses)***

Activity	Number	% of Total
Builder/designer	28	35%
User	23	28%
Marine retailer/dealer/service agent	25	31%
Government	6	7%
Industry association	6	7%
Other	6	7%
Not stated	6	7%
Total Responses	**100**	**123%**

D.2 Reference Group

Member	Affiliation
Gwyn Alway	Marine Safety, Tasmania
Peter Baulch	
Colin Bilston	Quintrex
Werner Bundschuh	Queensland Transport
Sherry Donaldson	Australian Marine Industries Federation
Colin Finch	Marine Safety, Tasmania (Chair)
John Hickey	NSW Waterways Authority
Mark Hughes	Marine Safety Victoria
Peter Hunt	Hunts Marine Pty Ltd
Ian Law	Riviera
Kevin Nichols	Nichols Brothers Pty Ltd
Frank Schubert	WA Department of Planning and Infrastructure
Alan Steber	Stebercraft
Marianne Whittley	Whittley Marine Industries

D.3 Buoyancy

Q1. Should the breakpoint length for a boat's buoyancy standard be 6 metres or another length? If another length, what length?

Breakpoint	Number	% of Total	% of Responses
3.5 m	1	1%	2%
6.0 m	22	27%	35%
7.0 m	7	9%	11%
7.5 m	26	32%	42%
8.0 m	1	1%	2%
20.0 m	1	1%	2%
All craft	3	4%	5%
Other, not specified	1	1%	2%
Not stated	19	23%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that the breakpoint should be 6m. The prime reason for this decision was that 6m is compatible with breakpoints in international standards and existing Australian legislation.

Q2. Do you agree with the proposed buoyancy definitions or do you prefer the ABYC definitions?

Preferred definition	Number	% of Total	% of Responses
Proposed buoyancy definitions	37	46%	69%
ABYC definitions	17	21%	31%
Not stated	27	33%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that the current buoyancy definitions in the standard should remain. An advisory note should be included in the standard to the effect that where the standard used to determine a boat's buoyancy has definitions of basic and level buoyancy, those definitions shall apply.

Q3. Do you agree with the proposal to allow boat builders to leave the buoyancy standard field blank on NCPs attached to boats of less than 6 metres in length?

Buoyancy field optional	Number	% of Total	% of Responses
Yes	33	41%	56%
No	26	32%	44%
Not stated	22	27%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that the field should not be allowed to be left blank. The standard should be amended so that it is a requirement that the field shall say either basic flotation, level flotation, or something else. The word "nil" should not be used. Whatever word is used, it must be informative and be backed up by education as to what all the words mean.

The NMSC later decided on the words "insufficient flotation".

Q4. Should compliance with a buoyancy standard be mandatory, with the consequent effect that boat builders will not be able to leave the buoyancy standard field blank on NCPs attached to boats of less than 6 metres in length?

Buoyancy standard mandatory	Number	% of Total	% of Responses
Yes	25	31%	44%
No	32	40%	56%
Not stated	24	30%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that compliance with a buoyancy standard is desirable primarily for the reason that it establishes a level playing field for all boat builders. As time is needed to phase in such a requirement, the NMSC is to be advised that it should be mandatory for all new boats to comply with a buoyancy standard with effect from three years from the date that Ministers (ie ATC) announce the NCP.

The mandatory buoyancy requirement could be introduced by legislation or could be introduced as a component of the NCP (for example by removing the option for the builder to say in the buoyancy field that the boat has something other than basic or level flotation).

D.4 Engine Information

Q5. Should boat builders be allowed to leave the outboard engine power rating and engine weight fields blank on NCPs attached to boats of 6 metres or more in length, particularly if the boat has been designed to be powered by an outboard engine?

Engine details optional	Number	% of Total	% of Responses
Yes	11	14%	19%
No	48	59%	81%
Not stated	22	27%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that these fields should not be permitted to be left blank when a boat is powered by an outboard engine, and that the standard should be amended accordingly. The standard needs to make it clear that the engine power rating applies only to a boat's primary propulsion.

After note: *It was also agreed at this point that this outcome would not apply to a boat that had a CE plate affixed. This, however, is contrary to the outcome later agreed in when discussing use of other standards (see Section D.13.1). It was then agreed that for a boat to be used in Australia, if another plate (or plates) affixed under another standard (or standards) do not provide the same information as required to be shown on the NCP, then an NCP must also be affixed to the boat.*

D.5 Additional Information

Q6. Should boat builders be allowed to provide additional information on an NCP? If so, what type of information?

Additional information on NCP	Number	% of Total	% of Responses
Yes	50	62%	82%
No	11	14%	18%
Not stated	20	25%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that additional information should be allowed. No parameters were recommended for the type of information that could be displayed. It was agreed in principle that a standard layout for the mandated items on the NCP should be developed, and space left for additional information.

D.6 Construction Standard

Q7. Should a construction standard field be included on NCPs?

Construction standard field	Number	% of Total	% of Responses
Yes	23	28%	38%
No	37	46%	62%
Not stated	21	26%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that this should be an optional field that builders may choose to include on an NCP.

Q8. Should boats under 6 metres be built to a mandated construction standard?

Construction standard mandatory	Number	% of Total	% of Responses
Yes	23	28%	38%
No	37	46%	62%
Not stated	21	26%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that such boats should not be required to be built to a mandated construction standard. Builders may build to a standard if they wish.

Q9. Should the standard(s) used to determine the engine power rating, engine weight, person capacity, load capacity and buoyancy be included as a field on the NCP attached to boats?

Standard used stated	Number	% of Total	% of Responses
Yes	25	31%	40%
No	37	46%	60%
Not stated	19	23%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that this should be an optional field that builders may choose to include on an NCP.

D.7 Symbols on the NCP

Q10. Does the use of symbols assist in improved understanding of the information on an NCP?

Symbols useful	Number	% of Total	% of Responses
Yes	49	60%	82%
No	11	14%	18%
Not stated	21	26%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that symbols do assist in improved understanding. If symbols are used, they should comply with the ISO standard(s) for symbols.

Q11. Should a choice be permitted as to whether symbols or words can be used to display the information on an NCP?

Choice permitted	Number	% of Total	% of Responses
Yes	28	35%	47%
No	21	26%	35%
Both symbols & words	11	14%	18%
Not stated	21	26%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that a choice should be permitted.

Q12. If a choice of symbols or words is not permitted, which is preferred: symbols or words?

Preference	Number	% of Total	% of Responses
Symbols	41	51%	72%
Words	16	20%	28%
Not stated	24	30%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that either words or symbols may be used.

D.8 Standards used for Information on an NCP

Q13. Are the standards, which are specified in the NCP Standard, adequate? If other standards were to be added, which ones?

Standards adequate	Number	% of Total	% of Responses
Yes	49	60%	80%
No	12	15%	20%
Not stated	20	25%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that the standards are adequate. All others are covered by the definition of "relevant national or international standard".

D.9 Warning Statements

Q14. Who should determine the warning statement in relation to person and load capacity?

Warning statement to be determined by:	Number	% of Total	% of Responses
Boat manufacturer	11	14%	18%
Specified in the NCP standard	39	48%	65%
Both boat manufacturer & specified in the NCP standard	6	7%	10%
Not necessary	3	4%	5%
Other	1	1%	2%
Not stated	21	26%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that the builder should determine whether a warning statement is required and, if so, what the words should be. It should be clarified in the standard that these decisions shall be made on the basis of the standard used to determine the boat's person and load capacity.

Q15. What should the wording on the proposed warning statement be? (This question related to the statement warning of the implications of altering a boat)

Reference Group Outcome: It was agreed that the wording should be the same as in the draft standard.

D.10 Application of the Standard

Q16. Should all types of new recreational boats require an NCP to be affixed? If not, which ones should be exempt?

All Recreational boats	Number	% of Total	% of Responses
Yes	33	41%	67%
No	16	20%	33%
Not stated	32	40%	
Total	**81**	**100%**	**100%**

Exempt recreational boats	Number	Reasons
Racing boats	10	No racing could occur; purpose built boats
Sail boats	3	Inherent buoyancy; design problems if required
Non-powered boats	3	Not registered; design problems if required
Land-locked paddle boats	2	Limited hazards; small passenger capacity
Windsurfers	1	Design problems if required
Harbour dinghies	1	Not practical
Personal water craft	1	Small passenger capacity
Those specified in a construction standard	1	
Traditional craft, eg Aboriginal and Torres Strait Islanders	1	
Isolated single build, eg replica	1	

Q17. Should the proposed standard only apply to powered boats?

Powered boats only	Number	% of Total	% of Responses
Yes	12	15%	21%
No	45	56%	79%
Not stated	24	30%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that not all types of recreational boats require an NCP. Those boats that are exempted from complying with the ABYC and ISO standards should also be exempted from complying with the NCP standard. The standard should be changed to clarify that it applies to inflatable boats, and the appropriate ABYC, AS and ISO standards should be referenced.

D.11 Application Date

Q18. Is the timeframe for the NCP requirement acceptable or can it be shortened or should it be lengthened?

Timeframe	Number	% of Total	% of Responses
Acceptable	42	52%	82%
Can be shortened	5	6%	10%
Needs to be lengthened by:			
12 months	2	2%	4%
24 months	2	2%	4%
Total	*4*	*5%*	8%
Not stated	30	37%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that the NCP requirement should apply to new recreational boats with effect 2 years after the initiative is formally announced. The requirement for mandatory compliance with a buoyancy standard should apply with effect 3 years after the NCP initiative is formally announced. "Formally announced" means an announcement by Australian Transport Ministers by way of an ATC communiqué.

D.12 Compliance and Offences

Q19. Are the proposed offences sufficient?

Offences sufficient	Number	% of Total	% of Responses
Yes	33	41%	80%
No	8	10%	20%
Not stated	40	49%	
Total	**81**	**100%**	**100%**

Reference Group Outcome: It was agreed that this issue would be referred back to the NMSC for consideration, as it is more an implementation matter than a standards matter.

The following points were noted with respect to implementation:

- It was considered that there had not been enough discussion on penalties and compliance. It was requested that this issue be further considered by a small group including representation from industry. In particular, the different components of the industry need to be identified (ie builder, retailer etc) and the responsibilities of each discussed and clarified.

- To date the focus has been on the standard. It is now necessary to focus on implementation issues.

- It is important that implementation is kept simple and that there is uniform implementation across Australia. Compliance and enforcement is necessary but it must be done sensibly with an eye to the fact that recreational boating is a hobby.

- A uniform design for the NCP needs to be considered; in particular, the plate size. It may be necessary to decrease the minimum font size required by the standard.

D.13 Other Matters Raised

D.13.1 Use of other Standards

Reference Group Outcome: It was agreed that boats built or imported for use in Australia should, as a minimum, have to display the information mandated by the NCP standard. If this requirement can be met by displaying a CE plate and/or an NMMA plate then an NCP will not be required to be affixed. Where an existing plate does not include the mandated information, then an NCP will need to be affixed.

D.13.2 Name of Plate

Reference Group Outcome: It was agreed that the plate should be called the "Australian Builder's Plate". The word 'national' may be confusing when boats are exported.

D.13.3 Definition of Length

Some commentators suggested that the use of the length definition from the National Standard for Commercial Vessels was not appropriate for recreational boats.

Reference Group Outcome: It was agreed that 'length' in the Standard should be defined to mean the same as the definition of 'length of the hull' in *ISO8666 Small craft–Principal Data*. This definition is the same as the corresponding ABYC definition.

D.13.4 Handholds on the Hull of a Boat

Some commentators suggested that handholds should be provided on the hull so that boat users would have something to hold onto in the event of a boat over turning.

Reference Group Outcome: It was agreed that this proposal was impractical to implement.